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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SPORER, ERIC NOLAN

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/599,905	<b>Applicant(s)</b> HOFFMEIER ET AL.	
	<b>Examiner</b> ERIC SPORER	<b>Art Unit</b> 3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 October 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 31-62 is/are pending in the application.
- 4a) Of the above claim(s) 56-62 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 31-55 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 October 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>13 October 2006</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election of species I, Fig. 1-15 (Figure 15 being included in species I), corresponding to claims 31-55 in the reply filed on 6 August, 2009 is acknowledged.

Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

2. Claims 56-62 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 6 August 2009.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 40 and 54 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Regarding claim 40, the limitation "wherein the switching flap forms the main valves" renders the claim indefinite. The main valves are claimed as being coupled by the linkage in claim 38, and the same linkage is claimed as being further connected to a separate switching flap in claim 39. It is unclear how the main valves can be coupled by a linkage, which is further coupled to a switching flap, which forms the main valves.

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6. Since claim 40 was ambiguous, the examiner could not determine the meets and bounds, therefore the claim was not treated on the merits and a lack of such does not render the claim allowable.

7. Regarding claim 54, the limitation "the at least two receiving chambers area arranged within one another" renders the claim indefinite. It is unclear how both chambers can be arranged within the other chamber at the same time.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 31-39, 41-53 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bates et al. (GB 241,960).

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11. Regarding claim 31, Bates et al. disclose a liquid aspirator, the liquid aspirator comprising: at least one aspirator pump (Vacuum pump, Col. 2 Line 64); a receptacle (two receiving chambers b) having at least two receiving chambers b for liquid; a vacuum connector k connected to the receptacle, wherein liquid is sucked into the receptacle through the vacuum connector with the at least one aspirator vacuum pump; a drainage (outlet, Col. 5 Line 28) connected to the receptacle through which drainage liquid contained in the receptacle drains from the receptacle; a control p that controls that the at least two receiving chambers are alternately filled with liquid and the at least two receiving chambers that are currently not being filled are being drained. Bates et al. fail to disclose wherein the aspirator pump has a motor. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to include use a motor driven pump, as it is well known in the art to use motors to drive vacuum pumps.

12. Regarding claim 32, Bates et al. further disclose wherein the at least two receiving chambers each have one of the at least one aspirator pump alternately switched on and off by the control (slide valve p switches connection between chambers and pump alternately on and off).

13. Regarding claim 33, Bates et al. further disclose wherein the at least aspirator pump is actuated by the control p for alternating aspiration of liquid into the at least two receiving chambers

14. Regarding claim 34, Bates et al. further disclose wherein the control is a mechanical control (slide valve).

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15. Regarding claim 35, Bates et al. disclose a liquid aspirator, in particular for liquids containing solids, the liquid aspirator comprising: at least one aspirator pump (Vacuum pump, Col. 2 Line 64); a receptacle (two receiving chambers b) having at least two receiving chambers b for liquid; a vacuum connector k connected to the receptacle, wherein liquid is sucked into the receptacle through the vacuum connector with the at least one aspirator vacuum pump; a drainage (outlet, Col. 5 Line 28) connected to the receptacle through which drainage liquid contained in the receptacle drains from the receptacle; a control d that controls that the at least two receiving chambers are alternately filled with liquid and the at least two receiving chambers that are currently not being filled are being drained, and wherein the two receiving chambers are sealed relative to a vacuum side of the pump by a main valve P (having sliding ports k2 and o). Bates et al. fail to disclose wherein the aspirator pump has a motor. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to include use a motor driven pump, as it is well known in the art to use motors to drive vacuum pumps.

16. Regarding claim 36, Bates et al. further disclose wherein the main valves P (having sliding ports k2 and o) are mechanically connected and coupled to one another so as to open and close alternately)

17. Regarding claim 38, Bates et al. further disclose wherein the main valves are coupled by a linkage (R2).

18. Regarding claim 39, Bates et al. further disclose wherein the linkage is connected to a switching flap (n) and pivots the switching flap, for connecting the

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vacuum side of the at least one aspirator motor alternatingly to one of the at least two receiving chambers.

19. Regarding claim 41, Bates et al., as applied to claim 35, further disclose wherein the at least two receiving chambers each have a float d1/f/d2 which is secured in a guide (see Fig. 4).

20. Regarding claim 42, Bates et al. further disclose wherein the float d2 is arranged under the main valve (hole q of valve d), so that a rise of liquid in the at least two receiving chambers past a predetermined level forces the float against the main valve and closes the main valve, respectively.

21. Regarding claim 43, Bates et al. further disclose wherein the guide has a lower area with penetrations q and E and an upper area (uppermost section receiving stem d2) that is closed circumferentially, wherein the guide surrounds in the upper area sealingly part d2 of the float when lifted.

22. Regarding claim 44, Bates et al. further disclose wherein the at least two receiving chambers are each sealingly connected by an auxiliary valve n to an exhaust to the atmosphere. Bates et al. do not disclose wherein the atmospheric exhaust is the exhaust side of the vacuum pump. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to exhaust the vacuum pump to the atmosphere, as it is well known in the art to use the atmosphere as a vent to as positive displacement pumps, which are the most efficient form of pump, exhaust to the atmosphere

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23. Regarding claim 45, Bates et al. further disclose wherein a connection (opening q) of the exhaust side of the at least one aspirator motor to the at least two receiving chambers is realized by the guides (holes receiving d2).

24. Regarding claim 46, Bates et al. further disclose wherein a connecting channel (chamber b interior) extends from a side of the auxiliary valve n facing away from the exhaust side of the aspirator motor to the float d' neighboring the auxiliary valve, respectively.

25. Regarding claim 47, Bates et al. further disclose wherein the main valve p and the auxiliary valve n of each of the receiving chambers are coupled to open and close alternatingly.

26. Regarding claim 48, Bates et al. further disclose wherein the main valves and the auxiliary valves are coupled mechanically by levers r.

27. Regarding claim 49, Bates et al. further disclose wherein the main valves are coupled by a first rocker p.

28. Regarding claim 50, Bates et al. further disclose wherein the auxiliary valves are coupled by a second rocker r.

29. Regarding claim 51, Bates et al. further disclose wherein the rockers are rigidly connected to each other (r2 rigidly connected to p).

30. Regarding claim 52, Bates et al. further disclose wherein the receiving chambers have essentially a cylindrical shape (see Fig. 2-3).

31. Regarding claim 53, Bates et al. further disclose wherein the two receiving chambers have the same volume (see Fig. 2).



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32. Regarding claim 55, Bates et al. further disclose wherein the at least two receiving chambers have a bottom side that is closeable by a vacuum flap n/t

33. Claims 31-34, 41, 52 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harrington (Pub. No.: US 2003/0221412).

34. Regarding claim 31, Harrington et al. a liquid aspirator, the liquid aspirator comprising: at least one aspirator pump (pneumatically powered, Paragraph [0018]); a receptacle 6 having at least two receiving chambers 10/26 for liquid; a vacuum connector 8 connected to the receptacle, wherein liquid is sucked into the receptacle through the vacuum connector with the at least one aspirator vacuum pump; a drainage 40 connected to the receptacle through which drainage liquid contained in the receptacle drains from the receptacle; a control 44/46 that controls that the at least two receiving chambers are alternately filled with liquid and the at least two receiving chambers that are currently not being filled are being drained (see Fig. 4 and 6).

Harrington et al. fail to disclose wherein the aspirator pump has a motor. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to include use a motor driven pump, as it is well known in the art to use motors to drive vacuum pumps.

35. Regarding claim 32, Harrington et al. further disclose wherein the at least two receiving chambers each have one of the at least one aspirator pump alternately switched on and off by the control (see Fig. 4 and 6).

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36. Regarding claim 33, Harrington et al. further disclose wherein the at least aspirator pump is actuated by the control 44/46 for alternating aspiration of liquid into the at least two receiving chambers

37. Regarding claim 34, Harrington et al. further disclose wherein the control is a mechanical control (valves).

38. Regarding claim 41, Harrington et al. further disclose wherein the at least two receiving chambers each have a float 22/24 secured in a guide (dashed lines of Fig. 1).

39. Regarding claim 52, Harrington et al. further disclose wherein the at least two receiving chambers are cylindrical (Paragraph [0029]).

40. Regarding claim 54, as best understood, Harrington et al. further disclose wherein one of the receiving chambers 50 is arranged within the other 26.

### ***Conclusion***

42. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Schell (US Pat. 5,832,948) discloses a liquid transfer system in which two vessels are pumped full and drained in an alternating fashion. Lanning et al. (US Pat. 6,314,978) discloses a feed system for fluids in which while one pressurized tank in a three tank system is being drained, the most drained tank is being vented, and the third tank is being filled. Leviton (US Pat. 4,384,580) and Holbrook (US Pat. 3,863,664) both disclose serial tank filling and draining systems that involved sequenced filling and dispensing.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIC SPORER whose telephone number is 571-270-7834. The examiner can normally be reached on Monday - Friday, 9 AM - 5 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on (571)272-4777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ERIC SPORER/  
Examiner, Art Unit 3753

/Robin O. Evans/  
Supervisory Patent Examiner, Art Unit 3753